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Amdt. Dated September 10, 2004
Reply to Office Action of June 21, 2004

REMARKS/ARGUMENTS

Prior to this Amendment, claims 1-22 were pending in the application. In this Amendment, claim 1 is amended to include the limitations of originally presented dependent claim 4, which is canceled, to more clearly distinguish the method of claim 1 from the art of record. Claim 8 is amended to make it dependent from claim 1 and more clearly claim features of the invention.

Independent claim 10 is amended to include the limitations of originally presented dependent claim 12, which is canceled, to further distinguish the method of claim 10 from the cited art.

Claims 15 and 17 are canceled.

Independent claim 19 is amended such that the claim is directed to computer readable medium having one or more computer readable program code devices not shown by the art of record. Specifically, the limitations of originally presented dependent claim 22 are added to claim 19, with claim 22 being canceled.

Claims 23 and 24 are added to provide protection for additional features of the method described in claim 1 that are not shown by the art of record.

No new matter is added by the claim amendments with support found at least in the original claims or by the addition of claims 23 and 24 with support found in the paragraph beginning at line 15 on page 12.

Claims 1-3, 5-11, 13, 14, 16, 18-21, 23, and 24 remain for consideration by the Examiner.

Rejections Under 35 U.S.C. §101

In the June 21, 2004 Office Action, claims 19-22 were rejected under §101 as being directed to non-statutory subject matter. With this Amendment, claim 22 is canceled, and claims 19-21 are amended to address this rejection by directing the claims to a computer readable medium with program code devices.

Claim Objections

Additionally, in the Office Action, claim 19 was objected to based on an informality. Claim 19 is amended to address this informality (i.e., deletion of unnecessary phrase "the that").

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Rejections Under 35 U.S.C. §112

The June 21, 2004 Office Action rejected claims 7, 8, 15, 17, 19, 20, 21, and 22 under §112, second paragraph as being indefinite. This rejection is believed addressed based on the claim amendments and following remarks.

Claim 7 and 8 were rejected in the Office Action because of contradictory claim language. In response, claim 8 is amended to remove its dependency from claim 7 (with claim 7 being amended to correct its dependency).

Claims 15 and 17 are canceled.

Claims 19, 21, and 22 were rejected based on the phrase "computer code devices", and claim 20 due to its dependency from claim 19. Claim 22 is canceled, and claims 19 and 21 are amended to use the phrase "computer readable program code devices" to clearly claim the subject matter of the invention.

Rejections Under 35 U.S.C. §103

In the Office Action, claims 1-22 were rejected under §103(a) as being unpatentable over U.S. Patent No. 6,311,269 ("Luckenbaugh") in view of Lincoln D. Stein, "Web Security..." ("Stein") further in view of Marty Hall, "Servlets and JSP..." ("Hall") and Bisailon et al., "TCP/IP With Windows..." ("Bisailon"). Claims 4, 12, 15, 17, and 22 are canceled. The rejection of the remaining pending claims is respectfully traversed based on the claim amendments and the following remarks.

As noted in Applicant's specification in the paragraph beginning at line 30, page 11, "a significant aspect of the invention" is the ability of the tunnel mechanism through the response generator to hide the servers from the requesting client. In one embodiment, the response generator is configured to "prepare a response that appears to have originated at the host Web server 130 and/or at the tunnel mechanism 140" and, hence, interaction with the hidden or protected servers is "not visible to the client 110, and specifically, the address or location (e.g., URL) of the servers 170, 180 is not provided to the client 110 to enhance the security of the firewall system 100." The paragraph beginning at line 3 of page 15 provides an example of the standard response passed through a typical firewall to a requesting client, and as can be seen, the response

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provides indication of the responding server. The cited references fail to show a tunnel mechanism that modifies the response to hide the responding server from the client after access is granted through a firewall.

Another important function of the tunnel mechanism is provided by the response generator, which is described at least in the paragraph beginning at line 16, page 11. The response generator also determines if there are any error messages "from the interfaces 174, 184 of the servers 170, 180" and if "any error message was received in response to the request", the response generator determines if the error is readily correctable and if so, invokes appropriate objects or software applications to address the error. The cited references also fail to show this feature of Applicant's invention.

More particularly, claim 1 is directed to a method for providing a client with selective access to a computer device behind a firewall and a host. The method includes receiving with a tunnel mechanism an access request from an external client after the access request has already passed through a port in the firewall. Further, claim 1 calls for "receiving a response to the access request from the computer device and modifying the response prior to transmitting the response to the external client to remove identification information for the computer device." Luckenbaugh (and the other references) fail to teach receiving a request that has already been filtered by a firewall and also, modifying a response from a computer device for which the firewall granted access to remove identification information for the computer device. For at least these reasons, Luckenbaugh does not suggest the claimed method and claim 1 is allowable over this reference.

The Office Action cites Luckenbaugh for teaching all aspects of claim 1 except for teaching the modification of the response to remove the identification information. Applicant agrees that Luckenbaugh fails to teach modifying the response after access is granted to a protected device. In col. 5, lines 14-65, Luckenbaugh teaches its method of using cookies to determine whether access to a device should be provided to a requesting client and returning results when access is granted. There is no discussion here or elsewhere of modifying the response to "remove identification information for the computer device." The

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Office Action at the top of page 7 asserts that this feature of the invention would have been obvious "in order to minimize the threat of accessing secure HTML by an external client directly."

However, Luckenbaugh specifically teaches the use of cookies and a CGI to protect secure HTML, and provides no motivation to further modify its system for added security. Further, Applicant disagrees that this would have been obvious to those in the art with no suggestion of modifying the response in this manner was known to Applicant prior to his invention and such a technique is not shown in any of the art of record. (see, for example, Stein which is specifically addressing web security). Hence, Luckenbaugh fails to support a rejection of claim 1.

Bisaillon is cited for teaching a TCP header "contains" internal device identification information, but then states in a conclusory manner that it would be obvious to remove this information "in order to minimize the threat of accessing a secure HTML by an external client directly." Neither Luckenbaugh nor Bisaillon provide any direct teaching of removing the information and instead when taken together teach that the response would "contain" such information and that the CGI and cookies are used to provide security. Because Bisaillon fails to overcome the deficiencies of Luckenbaugh, claim 1 is allowable over the combined teaching of these two references.

Additionally, Luckenbaugh fails to teach that the tunnel mechanism receives requests from clients after they have been filtered by a firewall. Apparently, the use of the CGI and the security cookies of Luckenbaugh are used to provide the functions of the firewall. Stein teaches firewall usage but provides no motivation to combine the use of a firewall with the teaching of other security measures, such as that of Luckenbaugh. The only motivation for combining the two references appears to come from Applicant's specification. For this additional reason, claim 1 is allowable over this reference taken alone or in combination with the other references.

Claims 2, 3, and 5-9 depend from claim 1 and are believed allowable at least for the reasons for allowing claim 1. Further, claim 8 calls for examining the response for an error message and operating the tunnel mechanism to take

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corrective actions to remove the error message. The Office Action on page 7 indicates that Luckenbaugh teaches this element with objects 313, 314 of Figure 3A. However, at this citation, Luckenbaugh is teaching processing a request for a cookie and if none is found, indicating an error to the requesting device. There is no teaching of finding an error in a "response" and correcting the error prior to transmitting the response. For this additional reason, claim 8 is believed allowable over Luckenbaugh when combined with the other references.

Independent claim 10 is directed to a method similar to claim 1 and the reasons for allowing claim 1 are believed equally applicable to claim 10. Further, claim 10 calls for the identification removed to include "URL information for the internal device and the response modifying includes replacing the internal URL information with URL information for the tunnel mechanism." As discussed above, Luckenbaugh and the other references fail to teach modifying a response to remove the identification information for an internal network device. Further, the Office Action provides no specific citation for or any reason for finding the "replacing the internal URL information with URL information for the tunnel mechanism" taught or suggested by the references. Luckenbaugh does not teach providing URL information for the CGI to the external client and Applicant could find no relevant teaching in the other references. Because a prima facie case of obviousness presented by the Office Action and the references fail to teach or suggest the method of claim 10, the rejection of claim 10 should be withdrawn. Claims 11, 13, and 14 depend from claim 10 and are believed allowable as depending from an allowable base claim.

Independent claim 16 is directed to a system with limitations similar to those of claim 1 provided in apparatus format. Hence, the reasons provided for allowing claim 1 are applicable to claim 16. Claim 18 depends from claim 16 and is believed allowable as depending from an allowable base claim.

Independent claim 19 is directed to a computer readable medium with computer readable program code devices to cause a computer to "translate error messages in the received response, to take response actions to the error messages, and to include unresolved ones of the translated error messages in the modified response." As discussed with reference to claim 8, Luckenbaugh

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and the other cited references fail to teach identifying error messages in a "response" and taking corrective responses. Instead, Luckenbaugh merely teaches identifying "requests" that fail to include cookie values. The cited references fail to teach or suggest every element of claim 19 and hence, the rejection of claim 19 and claims 20 and 21 which depend from claim 19 is not proper and should be withdrawn. Further, claim 21 includes limitations similar to claim 1 and is believed allowable for the reasons provided for allowing claim 1.

Additionally, the Office Action rejected claims 1-4, 9, 16, and 18-22 under §103(a) as being unpatentable over U.S. Patent No. 6,457,061 ("Bal") in view of Stein in light of Harry Newton, "Newton's Telecom Dictionary" ("Newton") and U.S. Patent No. 5,815,571 ("Finley"). The rejection of the claims is traversed based on the following remarks.

The Office Action fails to make out a prima facie case of obviousness based on these references because there are no citations to the references for teaching modifying the response to remove identification of the protected computer device or for correcting errors in a response from the protected device. Applicant's review of Bal, Newton, and Finley also failed to find a teaching or suggestion of these elements. Hence, independent claims 1, 16, and 19 and claims 2, 3, 9, 18, 20, and 21, which depend therefrom, are believed in condition for allowance over this combination of references.

Further, the Office Action rejected claims 7 and 8 under §103(a) as being unpatentable over Bal in view of U.S. Patent No. 6,526,524 ("Kelley") and further in view of U.S. Patent No. 6,441,927 ("Dow"). Claims 7 and 8 depend from claim 1 and are believed allowable as depending from an allowable base claim. Further, Kelley is cited at col. 30, lines 10-30 for teaching the limitation of claim 8 of resolving the error prior to transmitting the response. However, Kelley merely teaches tracking errors and notifying a user regarding errors and provides no teaching at this citation of attempting to resolve problems prior to responding. For this additional reason, the method of claim 8 is not suggested by this combination of references.

Yet further, the Office Action rejected claims 10-14 as being unpatentable over Bal in light of Newton in view of Stein. Claim 10 calls for modifying the

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response prior to transmittal to remove the identification information of the internal device and to replace it with URL information for a tunnel mechanism. The Office Action provides no citation in any of the references for either of these limitations. Additionally, as discussed previously, Applicant's could find no teaching in Bal, Newton, or Stein of hiding the internal device and certainly, not of providing URL information for a tunnel mechanism. For these reasons, this combination of references fails to support a rejection under §103(a), and Applicant respectfully requests that this rejection of claims 10, 11, 13, and 14 be withdrawn.

Additionally, the Office Action rejected claim 19 under §103(a) as being unpatentable over Bal in light of Newton and in view of Stein. As amended, claim 19 calls for computer readable program code devices configured to cause a computer to translate error messages in the received response and to take response actions to the error messages prior to sending a modified response. Bal, as discussed above with reference to claims 7 and 8, fails to teach or suggest correcting errors in a response, and Newton and Stein fail to overcome this deficiency of Bal. Hence, claim 19 is allowable over the combination of Bal, Newton, and Stein.

Conclusions

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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